

WELLNESS

OBJECTIVES

To demonstrate mastery of Module Subject the trainee will:

1. Define different types of stress.
2. Generate a list of coping techniques for stressors.
3. Identify personal resources for dealing with stress.

RESOURCES

Definitions of Stress

Stress researcher Hans Selye was one of the first to identify stress and its effects on the body. He defined stress as a nonspecific response of the body to any demand. The pioneers of stress research categorized all stress as negative or bad. Today, we understand that stress is anything in the environment that causes us to adapt, and that a "stressful" situation can be either happy/positive (like the birth of a baby) or sad/negative (like the death of a loved one).

We also understand that stress isn't limited to what goes on in our thoughts. We know that stress is a nonspecific automatic biological response to demands made upon an individual. Scientifically speaking, stress is any challenge to homeostasis, or the body's internal sense of balance. Stress is a biological and biochemical process that begins in the brain and that spreads through the autonomic nervous system, causing hormone release and eventually exerting an effect on the immune system. Simply stated, the stress response starts in two major systems: (1) the nervous system, which reacts almost simultaneously, and (2) the endocrine (or hormone) system, which takes longer to react but which persists much longer. Stress sets off a complex domino effect in the body, involving an entire series of body systems and a whole range of powerful hormones.

We know that stress does not do the same thing to all people. One of the factors that is involved in this difference is how the impact of stress in situations is altered by how it is perceived by individuals who are affected by the situation. For example, while traveling in the Middle East, Dr. Robert Eliot saw two individuals, both driving Mercedes, crash into each other. The two men, uninjured, jumped out of their cars and began hugging and laughing instead of yelling at each other, as Eliot would have expected. Curious about their odd exchange, Eliot asked his interpreter what the two men were saying. The interpreter explained that the two men were thanking Allah for the chance to meet this way.

Plenty of evidence confirms that the way you perceive stress has a lot to do with how stress affects you. American Institute of Stress president Paul J. Rosch likens stress to a

ride on a roller coaster. "There are those at the front of the car, hands over head, clapping, who can't wait to get on again," he points out, "and those at the back cringing, wondering how they got into this and how soon it's going to be over." Or, to put it another way, one roller coaster passenger "has his back stiffened, his knuckles are white, his eyes shut, jaws clenched, just waiting for it to be over. The wide-eyed thrill-seeker relishes every plunge, can't wait to do it again."

Another difference depends on the timing of the stress. We are all more vulnerable to the effects of stress at certain times - especially when we're already weakened by some circumstance in our lives. Most researchers agree that the time to make major changes in life is *not* the period following an already stressful event. For example, it's probably not the best idea to move to a new town and begin a new job just after going through a divorce. And since everyone is vulnerable to different stresses at different times, it's wise to reduce unnecessary challenges when you're particularly vulnerable, say the researchers.

Rosch points out that differences in perception can cause some stress to be good stress (*eustress*) rather than bad stress (*distress*), and he uses as an example symphony conductors. "They work long hours, travel frequently, deal with prima donnas and sensitive artists, yet they live long and productive lives. They've got positive vibes going. They enjoy what they're doing, have pride of accomplishment, the approbation of their peers, and the applause of the audience, all positive stresses."

In essence, some things that are stressful also promote curiosity and exploration. They are challenging, stimulating, and rewarding. Competitive sports are an excellent example. It's extremely stressful, both physically and emotionally, to gear up for a football game, worry about winning, and then pound across the field for three hours in an attempt to do it. But many believe the rewards and the thrill are well worth the stress, and millions of fans couldn't agree more. On the other hand, boredom and under-stimulation can also be distressful.

Types of Stress

Basically, there are three types of stress: physical, psychological, and psychosocial.

Physical stress involves stressors in the environment - factors such as extremes in temperature, environmental pollution, constant noise, or electric shock. Researchers also categorize physiological factors as physical stress. Examples include injury, surgery, hypoglycemia, prolonged exercise, or an inadequate supply of oxygen.

Psychological stress stems from the way we feel, the attitudes we have, and the way we react toward anything that is threatening us, whether the threat is real or imagined. As in the example of the roller coaster, one person may react calmly, while another may become extremely stressed.

Psychosocial stress involves stressors from interpersonal relationships, arguments or conflicts with family members, neighbors, employers, friends, or other people around us. Psychosocial stress may result from intense social interactions, but it can also occur when there is isolation as a result of inadequate social interactions.

Outcomes of Stress

Stress is costly. Obviously, no one can put a precise price tag on the various health costs of stress, but figures from a variety of sources give us a fairly good idea of its devastating impact. For example, researchers at the American Institute of Stress estimate that 75 to 90 percent of all visits to health-care providers result from stress-related disorders. The American Heart Association says that more than half of all Americans who die succumb to heart disease and that more than 50 million work days a year, adding up to a whopping \$8 billion, are lost annually to heart-related diseases. Just among the nation's executives, an estimated \$10 to \$20 billion is lost each year through absence, hospitalization, and early death, much of it as a result of stress. The National Council on Compensation Insurance says that stress-related claims account for almost one fifth of all occupational disease. Fully one-fourth of all Workman's Compensation claims are for stress-related injuries, and researchers estimate that 60 to 80 percent of all industrial accidents are related to stress.

Stress-related symptoms and illnesses are costing industry a conservatively estimated \$150 billion a year in absenteeism, company medical expenses, and lost productivity. The results of a study at New Mexico State University suggest a strong relationship between stress and absenteeism. Other studies show that stress accounts for more than 20 percent of the costs associated with high job turnover, strikes, work stoppages, absenteeism, and decline in productivity.

Left unchecked, unremitting stress can also shorten your life. In one long-term study that gives a particularly good measure of the effects of stress, researchers studied more than 600 people over twelve years. Researchers tested each study subject at the beginning of the period, asking if they suffered from distress; at the end of the twelve years, they discovered that the existence of distress at the study's outset was a good predictor of who would die during the period of the study. Even when researchers tried to "juggle" the results - by controlling for factors such as smoking, cholesterol levels, obesity, or high blood pressure, or by excluding people with chronic heart disease - the figures remained the same.

The good news is that stress doesn't have to knock you out. Research shows that some people manage to be resilient to stress; others exhibit what scientists call "hardiness," an ability to resist the ill-effects of stress. Research has also indicated that there are things that help you cope better with stressors. To figure out where you stand, it's important to know the factors that lead to stress, the physiological reactions of the body when under stress, and the way that stress can compromise the immune system and lead to illness.

Factors Leading to Stress

While researchers recognized the presence of stress decades earlier and had specifically linked it to disease several years earlier, it was not until early in the 1950s that anyone was able to identify a list of specific events that contributed to stress. During the early 1950s, University of Washington psychiatrist Thomas Holmes noted that tuberculosis had occurred among patients after a cluster of disruptive events, such as a death in the family, a new job, or a marriage. Based partly on that observation and partly on his extensive research, Holmes pronounced that the single common denominator for stress is "... significant change in the life pattern of an individual." Holmes emphasized that stress did not *cause* the tuberculosis - tuberculosis bacteria had to be present - but that stress somehow weakened the body or made it more vulnerable to the disease.

Branching out in his research, Holmes began to search for specific links between disease and what he called *life events*, those things in life that call for the greatest adjustment. He found that the more life events a person was subjected to within a brief period of time, the more likely he or she was to become ill. Holmes developed a social-readjustment rating scale along with his colleague Richard Rahe; commonly known as the Holmes-Rahe Scale, it assigns a numerical score to the almost four dozen stressors, or life changes, that increase the risk of disease. Subsequent research by hosts of independent scientists has verified the accuracy of the Holmes-Rahe scale.

How to Protect Yourself from the Negative Effects of Stress

If everyone is a "victim" of stress, are there ways we can protect ourselves from the effects of stress? Absolutely! One of the first ways, says Baylor College of Medicine psychologist Michael Cox, is to face the stress head-on. Recognize it, and get ready to deal with it. "Avoiding and denying that stress exists won't make it go away," he says. "Look at different ways you can change the situation to lessen the stress, make your decision, and face the stress head on. Action is the fastest way to reduce the level of stress."

Following are some ideas from cardiologist Robert S. Eliot and others as to how you can reduce the effects of stress:

- Develop what Eliot calls a game plan for your personal aspirations, both short-term and long-term ones.
- Take a personal inventory and reestablish important priorities. You need to balance your talents and goals, similar to the way in which you'd balance your financial portfolio.
- Work to get things back into balance, and figure out where your long-term goals may be losing out to short-term pressures, Eliot says.
- Be nice to yourself. Do something nice for yourself every day. Take the time to read something you love, soak in a warm bath, take a brisk walk, or call an old friend.
- Develop a system of time management that will help you plan your day without becoming a stressor itself. When you're scheduling your time, remember to leave time for play, time for hobbies and friends, and time for simple relaxation. If you have to, schedule in time for breaks.
- Just as you need to develop a game plan for your personal aspirations, Eliot advises developing a game plan for your career or work. Especially important in today's economy is the ability to adapt, continually assess where you are, look ahead, and prepare for change.
- If you commute to work, make sure you plan enough time to arrive without feeling stressed. If you can, turn your commute into something pleasant: Ride the bus instead of driving, and take the chance to catch up on some favorite books or magazines. If you have to drive, try out some entertaining tapes instead of the usual radio fare.
- Once at work, try the following strategies: Instead of letting the telephone control you, control the telephone. For example, take initiative to make calls, and block out several periods during the day in which to return calls. Do what you can to reduce environmental stresses at work (noise, temperature extremes, and so on). And, at least once a day, concentrate on doing at least one task - no matter how small - that brings you satisfaction.
- Be realistic in your expectations of your other people in your life. According to Eliot, it's crucial to accept people for who they are and let them express their own ideas.

Pay attention to your physical health. Have regular checkups, and take care of health problems promptly. If you notice unusual symptoms, have a doctor check them out as soon as possible. Above all, believe that you are well.

- Get plenty of sleep. British researchers concluded that flexibility, spontaneity, and originality of thought can be seriously undermined by as little as one sleepless night.
- Eat a balanced diet; avoid alcohol, tobacco, and caffeine. During periods of particular stress, go for a small, high-protein meal.
- Get plenty of exercise.
- Stay socially connected. According to Eliot, "Friends are not just nice, they are a necessity." If you have problems, talk them out with a trusted friend; if you're facing something difficult, rehearse it with a friend first. Share your feelings often. Develop at least one confidant, someone with whom you can share your deepest thoughts and feelings. And write your thoughts down on a regular basis. Keeping a journal is good, but so is jotting your thoughts on scraps of paper.
- Get a pet!
- Learn to laugh at yourself, and fill your life with humor.
- When things get tough, find some way to relax. And, above all, stay flexible. There may be more ways to cope with any situation than at first are apparent.

Understanding the Importance of Optimum Stress Levels

The level of stress under which you operate is important: if you are not under enough stress, then you may find that your performance suffers because you are bored and unmotivated. If you are under too much stress, then you will find that your results suffer as stress related problems interfere with your performance.

It is important that you recognize that you are responsible for your own stress. Very often it is a product of the way that you think. Learn to monitor your stress levels, and adjust them up if you need to be more alert, or down if you are feeling too tense. By managing your stress effectively you can significantly improve the quality of your life. There is a linkage between stress and performance. Following are some tips on how you can ensure that you perform at your best by optimizing stress levels.

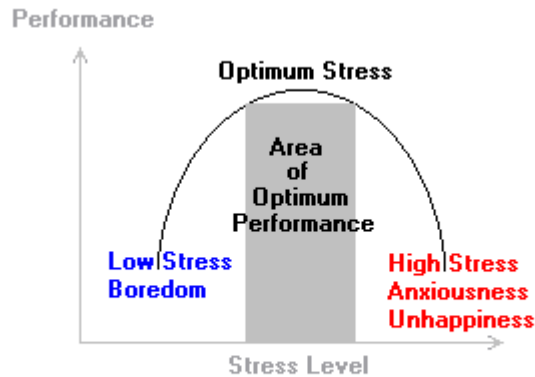
The approach to optimizing stress depends on the sort of stress being experienced:

- Short term stress such as difficult meetings, sporting or other performances, or confrontational situations. Here the emphasis is on short term management of adrenaline to maximize performance.
- Long term stress, where fatigue and high adrenaline levels over a long period can lead to degraded performances. Here optimizing stress concentrates on management of fatigue, health, energy and morale.

Naturally there is some element of overlap between these.

Short term stress

The graph below shows the relationship between stress and the quality of performance when you are in situations that impose short term stress:



The Relationship Between Stress and Performance

(Please note that this graph will be a slightly different shape for different people in different circumstances)

Where stress is low, you may find that your performance is low because you become bored, lack concentration and motivation.

Where stress is too high, your performance can suffer from all the symptoms of short-term stress.

In the middle, at a moderate level of stress, there is a **zone of best performance**. If you can keep yourself within this zone, then you will be sufficiently aroused to perform well while not being over-stressed and unhappy.

This graph and this zone of optimum performance are different shapes for different people. Some people may operate most effectively at a level of stress that would leave other people either bored or in pieces. It is possible that someone who functions superbly at a low level might experience difficulties at a high level. Alternatively someone who performs only moderately at low level might perform exceptionally under extreme pressure.

Long term stress

The problems of long term, sustained stress are more associated with fatigue, morale, and health than with short term adrenaline management.

The graph below shows the way in which performance can suffer when you are under excessive long term stress:

The Effect of Long Term Sustained Stress on Performance



The graph shows four major stages that you may go through in response to sustained levels of excessive stress:

1. During the first phase you will face challenges with plenty of energy. Your response will probably be positive and effective.
2. After a period of time you may begin to feel seriously tired. You may start to feel anxious, frustrated and upset. The quality of your work may begin to suffer.
3. As high stress continues you may begin to feel a sense of failure and may be ill more frequently. You may also begin to feel exploited by your organization. At this stage you may start to distance yourself from your employer, perhaps starting to look for a new job.
4. If high levels of stress continue without relief you may ultimately experience depression, burnout, nervous breakdown, or some other form of serious stress related illness.

Different people may move between these stages with different speeds under different stress conditions.

At a simple level it may appear that a measure of 'toughness' is how well you keep on going under extreme stress. This is simplistic. It is certainly possible to be self-indulgent and use stress as an excuse for not pushing yourself hard enough. It is, however, also far too easy to let yourself be pushed to a level where your work, and physical and mental health start to suffer. The strongest and most flexible position is to actively manage your levels of stress and fatigue so that you are able to produce high quality work over a long period, reliably.

High performance in your job may require continued hard work in the face of high levels of sustained stress. If this is the case, it is essential that you learn to pay attention to your feelings. This ensures that you know when to relax, slacken off for a short period, get more sleep, or implement stress management strategies. If you do not take feelings of tiredness, upset or discontent seriously, then you may face failure, burn-out or breakdown.

As well as paying attention to your own stress levels, it may be worth paying attention to the stress under which people around you operate. If you are a manager seeking to improve productivity, then failing to monitor stress may mean that you drive employees into depression or burn-out. If this is a danger, then reduce stress for long enough for them to recover, and then reconsider the pace you are setting.

REFERENCES

http://www.geocities.com/beyond_stretched/holmes.htm.

<http://www.musc.edu/psychiatry/slater/stress1.htm>.

WORKSHOP

1. Because stressors are rarely found in the home, an ergonomic program can focus exclusively on job-related stress:
True
False
2. Good posture is the way we _____ or _____ which causes the least amount of physical stress to the body:
 - a. sit, run
 - b. stand, walk
 - c. sit, stand
 - d. run, walk
3. Back injuries _____ occur as a result of one injury or accident:
 - a. always
 - b. usually
 - c. sometimes
 - d. rarely
4. Two factors which can increase the risk of back injury are _____:
 - a. stress, walking
 - b. sitting, eating
 - c. high body fat, stress
 - d. standing, stretching
5. _____ are not typically a result of accidents or sudden mishaps. Rather, this type of injury develops gradually over time:
 - a. pulled/strained muscles
 - b. cumulative trauma disorders
 - c. broken bones
6. Keeping the muscles strong around the joints and tendons will not help prevent cumulative trauma disorders:
True
False
7. While stress cannot be eliminated from our lives, it is best handled by being:
 - a. avoided
 - b. ignored
 - c. managed
8. Stress is any change (positive or negative) to which you must adjust:
True
False
9. While stress is commonly reported by American workers, most FSIS inspectors experience a very low level of stress:
True
False

10. The relaxation response lowers the heart rate, breathing rate, and blood pressure:
True
False
11. Creating a sense of control in your life is a technique for managing stress:
True
False
12. People need extra sleep when they are stressed:
True
False
13. What you eat does not have much impact upon your ability to cope with stress:
True
False
14. Strong lifestyle choices can help only minimally to neutralize the effects of stressful life events:
True
False
15. Even small amounts of exercise result in the release of pleasure-inducing hormones (called endorphins) that can help you cope better with stress:
True
False